REMARKS

This Application has been carefully reviewed in light of the Office Action mailed May 13, 2004. Claims 1-23 were pending in the Application. In the Office Action, Claims 1-23 were rejected. Claims 1-23 remain pending in the present Application.

In the Office Action, the following actions were taken or matters were raised:

SECTION 103 REJECTION

Claims 1-4, 6, 8 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,982,375 issued to Nelson et al. (hereinafter *"Nelson"*) in view of U.S. Patent No. 6,590,573 issued to Geshwind (hereinafter *"Geshwind"*). Claims 7, 9-15 and 18-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nelson* in view of *Geshwind* and further in view of U.S. Patent No. 6,147,695 issued to Bowen et al. (hereinafter *"Bowen"*). Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nelson* in view of *Geshwind* and further in view of U.S. Patent No. 6,446,130 issued to Grapes (hereinafter *"Grapes"*). Applicants respectfully traverse these rejections.

Of the rejected Claims, Claims 1, 6, 13 and 19 are independent. Applicants respectfully submit that the cited references, alone or in combination, do not disclose, teach or suggest the limitations of Claims 1, 6, 13 and 19 and, therefore, Claims 1, 6, 13 and 19, and Claims 2-5, 7-12, 14-18 and 20-23 that depend respectively therefrom, are allowable over the cited references.

Independent Claims 1 and 19

Applicants respectfully submit that the independent Claims 1 and 19 are patentable over the cited references at least because the cited references, alone or in combination, do not disclose teach or suggest all limitations of independent Claims 1 and 19 and there is no motivation or suggestion to combine reference teachings as proposed by the Examiner. Additionally, Applicants respectfully submit that the cited references teach away from the invention as recited by Claims 1 and 19.

Regarding independent Claim 1, in the Office Action, the Examiner states that *Nelson* discloses "assigning a first screen portion to a first rendering node (convey final left eye view

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data to rendering unit 570; fig.6)" and "assigning a second screen portion to a second rendering node (convey final right eye view data to rendering unit 590; fig. 6)" (Office Action, section 4, page 2). Regarding independent Claim 19, the Examiner repeats the rationale rejecting Claim 1 as a basis for rejecting Claim 19 (Office Action, section 6, page 7). Applicants respectfully disagree.

Nelson is directed toward a graphics accelerator with single-pass stereo capability (*Nelson*, column 2, lines 45-46). *Nelson* appears to disclose a graphics accelerator 112 having a command block 142 connected to a plurality of floating point blocks 152 where each floating point block 152 includes three main functional units or core processors (F-core block 352, L-core block 354, and S-core block 356) (*Nelson*, column 5, lines 5-25, column 6, lines 49-59). *Nelson* also appears to disclose that each core processor performs different functions associated with a primitive (F-core block 352 performs all floating point operations, including geometry transformation, clip testing, face determination, perspective division, and screen space conversion; L-core block 354 performs substantially all lighting calculations; S-core block performs setup calculations for all primitives) (*Nelson*, Column 6, lines 59-67, column 7, lines 1-15). *Nelson* also appears to disclose that when a header word for a given geometric primitive is received by F-core block 352, a microcode command is employed to set a bit in F-core state bits register 410 corresponding to <u>which eye view is currently being performed</u> (*Nelson*, column 9, lines 53-59)(emphasis added). *Nelson* further appears to disclose that F-core block 352 first performs a left eye transformation in step 540 (of figure 5) on the geometry data employing left view transformation matrices, <u>and then the same primitive is transformed again by F-core block 352</u> using the view transformation matrices from the other eye (i.e., the right eye view transformation matrices) (*Nelson*, column 9, lines 61-67, column 10, lines 1-15) (emphasis added). Thus, in *Nelson*, the <u>same floating point block appears to perform both the left and right view transformations</u>, in contrast to "assigning a first screen portion to a first rendering node," "assigning a second screen portion to a second rendering node," and "rendering, by the first rendering node, a left image portion" and "rendering, by the second rendering node, a right image portion" as recited by independent Claim 1, or "assigning a first screen portion to a first graphics pipeline," "assigning a second screen portion to a second graphics pipeline," "rendering, by the first graphics pipeline, a left image portion," and "rendering, by the second graphics pipeline, a right image portion" as recited by independent Claim 19. *Geshwind* and *Bowen* do not

remedy the deficiencies of *Nelson*. Thus, *Nelson* or *Geshwind* or *Bowen*, alone or in combination, do not disclose, teach or suggest all limitations of independent Claims 1 and 19 and, therefore, for at least this reason, the rejection of Claims 1 and 19 should be withdrawn.

Additionally, there is no motivation or suggestion to combine reference teachings as proposed by the Examiner. In the Office Action, the Examiner states that *Nelson* does not teach assembling the left image portion and the right image portion into the composite image (Office Action, section 4, page 2), but that it would have been obvious to incorporate a 3D composite as taught by *Geshwind* into the method of *Nelson* (Office Action, section 4, pages 2-3). Applicants respectfully disagree. *Nelson* appears to disclose that stereo glasses 92 are used in conjunction with a display device 84 to support viewing in stereo mode such that the stereo glasses 92 are synchronized to a refresh rate of the display device 84 of *Nelson* so that the stereo glasses 92 only allow one eye at a time to view the display device (*Nelson*, column 3, lines 55-65, figure 1). Thus, there is no suggestion or motivation to combine reference teachings a proposed by the Examiner to include a 3D composite image in *Nelson* because the *Nelson* system alternately displays left and right images synchronized with the stereo glasses of *Nelson* to produce the stereo image effect. Accordingly, for at least this reason also, Applicants respectfully submit that the rejection of Claims 1 and 19 is improper and should be withdrawn.

Further, Applicants respectfully submit that the cited references teach away from the invention as recited by Claims 1 and 19. For example, as discussed above, *Nelson* appears to disclose that stereo glasses 92 are used in conjunction with a display device 84 to support viewing in stereo mode such that the stereo glasses 92 are synchronized to a refresh rate of the display device 84 of *Nelson* so that the stereo glasses 92 only allow one eye at a time to view the display device (*Nelson*, column 3, lines 55-65, figure 1). Thus, *Nelson* teaches away from the proposed combination of references because to include a composited 3D image in the system of *Nelson* as proposed by the Examiner would inhibit the system of *Nelson* from producing stereo viewing as taught by *Nelson* and render the value and purpose of *Nelson* meaningless. Thus, for at least this reason also, Applicants respectfully submit that the rejection of Claims 1 and 19 is improper and should be withdrawn.

Claims 2-5, 18 and 20-23 depend respectively from independent Claims 1 and 19. For at least the reasons discussed above, Claims 1 and 19 are allowable over the cited references. Therefore, Claims 2-5, 18 and 20-23 that depend respectively therefrom are also allowable, and Applicants respectfully request that the rejection of Claims 2-5, 18 and 20-23 be withdrawn.

Independent Claims 6 and 13

Applicants respectfully submit that the independent Claims 6 and 13 are patentable over the cited references at least because there is no motivation or suggestion to combine reference teachings as proposed by the Examiner. Additionally, Applicants respectfully submit that the cited references teach away from the invention as recited by Claims 6 and 13.

Regarding independent Claim 6, in the Office Action, the Examiner states that *Nelson* does not suggest a composite image (Office Action, section 4, page 3), but that it would have been obvious to incorporate the compositing image as taught by *Geshwind* into the stereo transform application of *Nelson* (Office Action, section 4, pages 3-4). Regarding independent Claim 13, the Examiner repeats the rationale provided as a basis for rejecting Claims 1 and 6 with respect to the *Nelson* reference (Office Action, section 6, page 5) and further states that *Bowen* discloses a network and combining two images (Office Action, section 6, page 5) and that it would be obvious to modify the *Nelson* reference with the teachings of *Bowen* (Office Action, section 6, pages 5-6). Applicants respectfully disagree.

As discussed above in connection with independent Claims 1 and 19, there is no suggestion or motivation to combine reference teachings a proposed by the Examiner to include a 3D composite image in *Nelson* because the *Nelson* system alternately displays left and right images synchronized with the stereo glasses of *Nelson* to produce the stereo image effect. Therefore, there is no suggestion or motivation to provide a composited image in the *Nelson* system. Accordingly, for at least this reason, Applicants respectfully submit that the rejection of Claims 6 and 13 is improper and should be withdrawn.

Further, as discussed above in connection with independent Claims 1 and 19, *Nelson* teaches away from the proposed combination of references because to include a composited 3D image in the system of *Nelson* as proposed by the Examiner would inhibit the system of

Nelson from producing stereo viewing as taught by *Nelson* because the *Nelson* system alternately displays left and right images synchronized with the stereo glasses of *Nelson* to produce the stereo image effect. Therefore, the proposed combination of references would render the value and purpose of *Nelson* meaningless. Thus, for at least this reason also, Applicants respectfully submit that the rejection of Claims 6 and 13 is improper and should be withdrawn.

Claims 7-12 and 14-17 depend respectively from independent Claims 6 and 13. For at least the reasons discussed above, Claims 6 and 13 are allowable over the cited references. Therefore, Claims 7-12 and 14-17 that depend respectively therefrom are also allowable, and Applicants respectfully request that the rejection of Claims 7-12 and 14-17 be withdrawn.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request reconsideration and full allowance of all pending claims.

No fee is believed due with this Response. If, however, Applicants have overlooked the need for any fee due with this Response, the Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this Response to Deposit Account No. 08-2025 of Hewlett-Packard Company.

Respectfully submitted,

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